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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/801,106 | 02/28/2001 | Koji Egashira | 33082M072 | 8270 |

7590 12/22/2005
SMITH, GAMBRELL & RUSSELL, LLP
1850 M Street, N.W., Suite 800
Washington, DC 20036

EXAMINER

PERRIN, JOSEPH L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1746

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,106

Applicant(s)

EGASHIRA ET AL.

Examiner

Joseph L. Perrin, Ph.D.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18, 21, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-17, 21, 24 & 25 is/are allowed.
- 6) ☒ Claim(s) 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 October 2005 has been entered.

Response to Arguments

2. Applicant's arguments filed 27 October 2005 have been fully considered but they are not persuasive.

3. Applicant argues that THOMPSON is a "centrifugal wafer carrier cleaning apparatus" and not the claimed "liquid processing apparatus for processing wafers". This is not persuasive because applicant's arguments are directed to the intended use of the apparatus which is afforded little patentable weight. It is well settled that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case, since the

apparatus of THOMPSON has the intended use of cleaning a wafer carrier, clearly the apparatus is fully capable of cleaning wafers located within the wafer carrier.

Applicant further argues that the orifice of THOMPSON "is located directly above the rotor housing 140 (the rotating shaft)" in Figure 7 and that "[t]here is not teaching or suggestion of positioning outside the axis of the rotating [shaft]". This is not persuasive because the orifice of THOMPSON is located at "a position substantially aligned with the central axis of the processing chamber and the rotational and longitudinal axis of rotor 70" (col. 4, lines 59-63). Thus, THOMPSON discloses the orifice being aligned with the rotating shaft axis as well as near the shaft axis or "substantially aligned". Thus, recitation of THOMPSON reads on applicant's orifice positioning being "outside the axis of the rotating shaft".

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 18 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 18, orifices "positioned outside the axis of the rotating shaft" is considered new matter because while applicant's original

disclosure provides support for orifices positioned in disclosed locations (i.e. the Figures) applicant's disclosure is not enabled for positioning the orifices in any position outside the axis of the rotating shaft. This is considered new matter.

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 18 are rejected under 35 U.S.C. 102(b) as being anticipated or, in the alternative, under 35 U.S.C. 103(a) as obvious over Thompson '503. Thompson '503 discloses a wafer processing apparatus including a wafer holding members with circular plates arranged at both ends (rotor 70), a cylindrical processing container 21 having nozzles 90/100 for ejecting cleaning/drying fluids, respectively, arranged on the circumferential inner surface and fluid ejecting orifices 63/65 formed on the side inner surface and being "substantially aligned" with a rotating shaft (see entire reference, for instance, Figure 7 and relative associated text; col. 4, lines 55-63; col. 5, lines 19-20). It is noted that in Figure 7 there are two orifices referenced by numeral 65. Although Thompson does show rotor portion 81 as being a "ring", the figures of Thompson '503 do not explicitly show the ends of the rotor as circular plates. However, the position is taken that the end portions would inherently be "ring"-shaped, which would read on circular plate ends. It is further noted that it is well known in the semiconductor art for rotor end portions to be shaped like the wafers to be processed (i.e. circular plates), as shown in the previously cited Thompson reference (Thompson '419). Although the

Art Unit: 1746

position is taken that reference numerals 63/65 read on applicant's claimed "ejecting orifices", even if *arguendo* one were to construe Thompson's structure as reading on one ejecting orifice, it would have been obvious for one having ordinary skill in the art at the time the invention was made to provide plural orifices since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8; *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Accordingly, recitation of Thompson '503 reads on applicant's claimed invention.

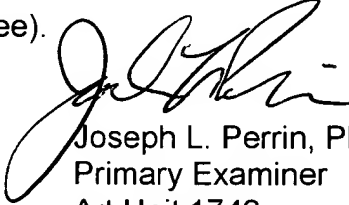
Allowable Subject Matter

8. Claims 9-17, 21, 24 & 25 are allowed for reasons of record.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1746

jlp